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*** YOU HAVE NEW MAIL ***

=> s oligonucleotide (7a) support
L1 7324 OLIGONUCLEOTIDE (7A) SUPPORT

=> s l1 and protect? (3a) group (7a) terminal hydroxy?
L2 23 L1 AND PROTECT? (3A) GROUP (7A) TERMINAL HYDROXY?

=> s l2 and label? (10a) protect? (4a) group
L3 1 L2 AND LABEL? (10A) PROTECT? (4A) GROUP

=> d l3 bib abs

L3 ANSWER 1 OF 1 USPATFULL on STN
AN 2006:144862 USPATFULL
TI Method of manufacturing labelled oligonucleotide conjugates
IN Stengelle, Klaus Peter, Pleiskirchen, GERMANY, FEDERAL REPUBLIC OF
Kvassiuok, Evgueni, Waldkraiburg, GERMANY, FEDERAL REPUBLIC OF
PI US 20060122382 A1 20060608
AI US 2003-531292 A1 20031014 (10)
WO 2003-EP11354 20031014
20051121 PCT 371 date
PRAI DE 2002-10247790 20021014
DT Utility
FS APPLICATION
LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE
1400, ARLINGTON, VA, 22201, US
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 487

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a method for the manufacture of labeled
oligonucleotide conjugates comprising the reaction of (a) an
oligonucleotide having a labile protecting group
bound to a terminal hydroxy group, and (b)

a labeling compound, wherein said labile protecting group is partially or completely substituted by said labeling compound in a nucleophilic substitution reaction.
##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s 12 not 13
L4 22 L2 NOT L3

=> dup rem 14
PROCESSING COMPLETED FOR L4
L5 22 DUP REM L4 (0 DUPLICATES REMOVED)

=> s 15 and label?
L6 16 L5 AND LABEL?

=> s 16 and orthogonal
L7 0 L6 AND ORTHOGONAL

=> s 16 and label? (5a) oligonucleotide?
L8 15 L6 AND LABEL? (5A) OLIGONUCLEOTIDE?

=> d 18 bib abs 1-15

L8 ANSWER 1 OF 15 USPATFULL on STN
AN 2009:5312 USPATFULL
TI Nucleic acid derivatives
IN Segev, David, Mazkeret Batia, ISRAEL
PA Bio-Rad Laboratories Inc., Hercules, CA, UNITED STATES (non-U.S.
corporation)
PI US 20090005334 A1 20090101
AI US 2008-1275 A1 20080219 (12)
RLI Continuation of Ser. No. US 2006-365928, filed on 2 Mar 2006, Pat. No.
US 7348148 Division of Ser. No. US 2002-57928, filed on 29 Jan 2002,
Pat. No. US 7034131
PRAI US 2001-264308P 20010129 (60)
DT Utility
FS APPLICATION
LREP MARTIN D. MOYNIHAN d/b/a PRTSI, INC., P.O. BOX 16446, ARLINGTON, VA,
22215, US
CLMN Number of Claims: 55
ECL Exemplary Claim: 1-20
DRWN 33 Drawing Page(s)
LN.CNT 2821

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound which comprises a backbone having a plurality of chiral carbon atoms, the backbone bearing a plurality of ligands each being individually bound to a chiral carbon atom of the plurality of chiral carbon atoms, the ligands including one or more pair(s) of adjacent ligands each containing a moiety selected from the group consisting of a naturally occurring nucleobase and a nucleobase binding group, wherein moieties of the one or more pair(s) are directly linked to one another via a linker chain; building blocks for synthesizing the compound; and uses of the compound, particularly in antisense therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 2 OF 15 USPATFULL on STN
AN 2007:210646 USPATFULL

TI Fret process
IN Sagner, Gregor, Penzberg, GERMANY, FEDERAL REPUBLIC OF
Heindl, Dieter, Paehl, GERMANY, FEDERAL REPUBLIC OF
Bechler, Ingrid, Geretsried, GERMANY, FEDERAL REPUBLIC OF
Krause, Christina, Penzberg, GERMANY, FEDERAL REPUBLIC OF
PA ROCHE MOLECULAR SYSTEMS, INC, Alameda, CA, UNITED STATES, 94501 (U.S.
corporation)

PI US 20070184453 A1 20070809
AI US 2003-678440 A1 20031001 (10)
PRAI EP 2002-22228 20021002

DT Utility

FS APPLICATION

LREP ROCHE MOLECULAR SYSTEMS INC, PATENT LAW DEPARTMENT, 1145 ATLANTIC
AVENUE, ALAMEDA, CA, 94501, US

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN 4 Drawing Page(s)

LN.CNT 1116

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to hybridization probes hybridizing
adjacently to another at a target nucleic acid sequence, wherein one
member of said hybridization probes comprises (i) a nucleotide sequence
entity which is substantially complementary to the sequence of the
target nucleic acid, (ii) a fluorescent entity being either a FRET donor
entity or a FRET acceptor entity, and (iii) a spacer entity connecting
the nucleotide sequence entity and the fluorescent entity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 3 OF 15 USPATFULL on STN

AN 2007:7542 USPATFULL

TI Oligonucleotides having site specific chiral phosphorothioate
internucleoside linkages

IN Cook, Phillip Dan, Fallbrook, CA, UNITED STATES
Manoharan, Muthiah, Weston, MA, UNITED STATES

PA ISIS Pharmaceuticals Inc., Carlsbad, CA, UNITED STATES (U.S.
corporation)

PI US 39464 E1 20070109
US 6440943 20020827 (Original)

AI US 2004-925348 20040824 (10)
US 1999-352058 19990714 (Original)

RLI Continuation-in-part of Ser. No. US 1998-115027, filed on 14 Jul 1998,
Pat. No. US 6242589

DT Reissue

FS GRANTED

EXNAM Primary Examiner: Wilson, James O.; Assistant Examiner: Owens, Jr.,
Howard V.

LREP ISIS Patent Department Woodcock Washburn LLP

CLMN Number of Claims: 62

ECL Exemplary Claim: 64

DRWN 7 Drawing Figure(s); 7 Drawing Page(s)

LN.CNT 3085

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel chiral compounds that mimic and/or modulate the activity of
wild-type nucleic acids are disclosed. In general, the compounds are
phosphorothioate oligonucleotides wherein the 5', and the 3'-terminal
internucleoside linkages are chirally Sp and internal internucleoside
linkages are chirally Rp.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 15 USPATFULL on STN
AN 2006:175301 USPATFULL
TI Nucleic acid derivatives
IN Segev, David, Mazkeret Batia, ISRAEL
PA Bio-Rad Laboratories Inc., Hercules, CA, UNITED STATES (U.S.
corporation)
PI US 20060148751 A1 20060706
US 7348148 B2 20080325
AI US 2006-365928 A1 20060302 (11)
RLI Division of Ser. No. US 2002-57928, filed on 29 Jan 2002, GRANTED, Pat.
No. US 7034131
PRAI US 2001-264308P 20010129 (60)
DT Utility
FS APPLICATION
LREP Martin D. Moynihan, PRTSI, Inc., P.O. Box 16446, Arlington, VA, 22215,
US
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 33 Drawing Page(s)
LN.CNT 2511

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound which comprises a backbone having a plurality of chiral carbon atoms, the backbone bearing a plurality of ligands each being individually bound to a chiral carbon atom of the plurality of chiral carbon atoms, the ligands including one or more pair(s) of adjacent ligands each containing a moiety selected from the group consisting of a naturally occurring nucleobase and a nucleobase binding group, wherein moieties of the one or more pair(s) are directly linked to one another via a linker chain; building blocks for synthesizing the compound; and uses of the compound, particularly in antisense therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 5 OF 15 USPATFULL on STN
AN 2005:75135 USPATFULL
TI Nucleic acid amplification and detection
IN Huang, Tai-Nang, Lexington, MA, UNITED STATES
Law, Simon W., Lexington, MA, UNITED STATES
Liao, Haisun, Sharon, MA, UNITED STATES
PA Linden Technologies, Inc. (U.S. corporation)
PI US 20050064432 A1 20050324
AI US 2003-664608 A1 20030919 (10)
DT Utility
FS APPLICATION
LREP FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
CLMN Number of Claims: 44
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 2854

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a substrate that includes a promoter primer that can be extended to form a transcribable template nucleic acid; and a capture probe. Typically, the promoter primer and the capture probe are non-complementary, and the capture probe can specifically bind to a target nucleic acid. The substrate can be used to amplify and detect one or more target nucleic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 15 USPATFULL on STN
AN 2004:292957 USPATFULL

TI Novel phosphorylation reagents for improved processes to convert terminal hydroxyl groups of oligonucleotides into phosphate monoesters
IN Vagle, Kurt, Longmont, CO, UNITED STATES
Leuck, Michael, Hamburg, GERMANY, FEDERAL REPUBLIC OF
Wolter, Andreas, Hamburg, GERMANY, FEDERAL REPUBLIC OF
PA Proligo, LLC, Boulder, CO, UNITED STATES (U.S. corporation)
PI US 20040230047 A1 20041118
US 7276598 B2 20071002
AI US 2004-821631 A1 20040409 (10)
PRAI US 2003-461730P 20030409 (60)
DT Utility
FS APPLICATION
LREP SWANSON & BRATSCHUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS RANCH, CO, 80129
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 1287

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention discloses novel phosphoramidite reagents for use in oligonucleotide synthesis. The present invention further discloses novel methods for the conversion of terminal hydroxyl groups of oligonucleotides into phosphate monoesters. By employing novel reagents, as also disclosed herein, the methods are fully compatible with standard procedures for solid phase oligonucleotide synthesis and do not require additional processing steps. The inventive reagents to phosphorylate terminal hydroxyl groups of oligonucleotides are superior to the prior art in that they for the first time combine the desired attributes of being a solid compound for facile handling, comprising two β -eliminating protective groups removable as fast or faster than the standard cyanoethyl group, providing a DMT-group for easy monitoring of the coupling efficiency, and enabling a fast final deprotection of the phosphorylated oligonucleotide without any extra manipulation steps.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 15 USPATFULL on STN
AN 2004:209359 USPATFULL
TI Nucleic acid amplification
IN Liao, Haisun, Sharon, MA, UNITED STATES
Deik, Amy Anderson, Wakefield, MA, UNITED STATES
Mamaeva, Natalia, West Roxbury, MA, UNITED STATES
Woodward, Caroline Ngaara, Boston, MA, UNITED STATES
Chen, Shin-Yih, Wellesley, MA, UNITED STATES
Huang, Yih, Lexington, MA, UNITED STATES
Shen, Ming, Guilford, CT, UNITED STATES
Law, Simon W., Lexington, MA, UNITED STATES
Huang, Tai-Nang, Lexington, MA, UNITED STATES
PA Linden Technologies, Inc., a Delaware corporation (U.S. corporation)
PI US 20040161792 A1 20040819
AI US 2004-814876 A1 20040331 (10)
RLI Continuation of Ser. No. US 2003-341199, filed on 10 Jan 2003, PENDING
DT Utility
FS APPLICATION
LREP FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 2668

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a method of producing replicates of sample nucleic acids.

The method can include providing an insoluble support comprising attached oligonucleotides, annealing sample nucleic acids to the attached oligonucleotides; constructing template nucleic acids by extending the attached oligonucleotides using a polymerase; and transcribing the template nucleic acids to produce RNA replicates of the sample nucleic acids. The attached oligonucleotides comprise a promoter sequence and a target annealing sequence, and (2) the proximal end of the promoter sequence is spaced from the insoluble support by a predetermined distance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 8 OF 15 USPATFULL on STN
AN 2004:178273 USPATFULL
TI NUCLEIC ACID AMPLIFICATION
IN Liao, Haisun, Sharon, MA, UNITED STATES
Deik, Amy Anderson, Wakefield, MA, UNITED STATES
Mamaeva, Natalia, West Roxbury, MA, UNITED STATES
Woodward, Caroline Ngaara, Boston, MA, UNITED STATES
Chen, Shin-Yih, Wellesley, MA, UNITED STATES
Huang, Yih, Lexington, MA, UNITED STATES
Shen, Ming, Guilford, CT, UNITED STATES
Law, Simon W., Lexington, MA, UNITED STATES
Huang, Tai-Nang, Lexington, MA, UNITED STATES
PA LINDEN TECHNOLOGIES, INC. (U.S. corporation)
PI US 20040137439 A1 20040715
US 6852494 B2 20050208
AI US 2003-341199 A1 20030110 (10)
DT Utility
FS APPLICATION
LREP FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN 14 Drawing Page(s)
LN.CNT 2695

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a method of producing replicates of sample nucleic acids. The method can include providing an insoluble support comprising attached oligonucleotides, annealing sample nucleic acids to the attached oligonucleotides; constructing template nucleic acids by extending the attached oligonucleotides using a polymerase; and transcribing the template nucleic acids to produce RNA replicates of the sample nucleic acids. The attached oligonucleotides comprise a promoter sequence and a target annealing sequence, and (2) the proximal end of the promoter sequence is spaced from the insoluble support by a predetermined distance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 15 USPATFULL on STN
AN 2003:271466 USPATFULL
TI Nucleic acid derivatives
IN Segev, David, Mazkeret Batya, ISRAEL
PA Bio-Rad Laboratories Inc. (non-U.S. corporation)
PI US 20030191074 A1 20031009
US 7034131 B2 20060425
AI US 2002-57928 A1 20020129 (10)
PRAI US 2001-264308P 20010129 (60)
DT Utility
FS APPLICATION
LREP G.E. EHRLICH (1995) LTD., c/o ANTHONY CASTORINA, SUITE 207, 2001

CLMN JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202
Number of Claims: 102
ECL Exemplary Claim: 1
DRWN 33 Drawing Page(s)
LN.CNT 2941

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound which comprises a backbone having a plurality of chiral carbon atoms, the backbone bearing a plurality of ligands each being individually bound to a chiral carbon atom of the plurality of chiral carbon atoms, the ligands including one or more pair(s) of adjacent ligands each containing a moiety selected from the group consisting of a naturally occurring nucleobase and a nucleobase binding group, wherein moieties of the one or more pair(s) are directly linked to one another via a linker chain; building blocks for synthesizing the compound; and rises of the compound, particularly in antisense therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 15 USPATFULL on STN
AN 2003:146192 USPATFULL
TI Nucleic acid amplification
IN Law, Simon W., Lexington, MA, UNITED STATES
PI US 20030099937 A1 20030529
AI US 2002-219616 A1 20020815 (10)
PRAI US 2001-312443P 20010815 (60)
US 2001-338523P 20011105 (60)
US 2002-373364P 20020416 (60)
DT Utility
FS APPLICATION
LREP FISH & RICHARDSON PC, 225 FRANKLIN ST, BOSTON, MA, 02110
CLMN Number of Claims: 59
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 2135

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a method of amplifying nucleic acids by appending a promoter sequence on an oligonucleotide and transcribing the nucleic acid. The oligonucleotide can attached to a solid phase, e.g., a chip. In one example, nucleic acids are amplified by a method that includes: providing a first solid support having 5' attached oligonucleotide; annealing a complex sample that comprises sample nucleic acids to the solid support; and producing template nucleic acids immobilized on the solid support that each include at least a segment of the sample nucleic acids, such that the immobilized templates represent the composition of the sample nucleic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 15 USPATFULL on STN
AN 2003:51109 USPATFULL
TI Linker phosphoramidites for oligonucleotide synthesis
IN Pon, Richard T., Calgary, CANADA
Yu, Shuyan, Calgary, CANADA
PA University Technologies International Inc. (non-U.S. corporation)
PI US 20030036066 A1 20030220
AI US 2001-948918 A1 20010910 (9)
PRAI US 2000-231301P 20000908 (60)
DT Utility
FS APPLICATION
LREP PATENT ADMINISTRATOR, KATTEN MUCHIN ZAVIS ROSENMAN, 525 WEST MONROE STREET, SUITE 1600, CHICAGO, IL, 60661-3693

CLMN Number of Claims: 72

ECL Exemplary Claim: 1

DRWN 7 Drawing Page(s)

LN.CNT 1978

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel approach for combining the ease of cleavage of carboxylic acid linker arms with the single phosphoramidite coupling chemistry of the universal supports useful in oligonucleotide synthesis. There is disclosed a new class of phosphoramidite reagents, linker phosphoramidites, which contain a bifunctional linker arm with a protected nucleoside linked through a 3'-ester bond on one end and a reactive phosphoramidite group or other phosphate precursor group on the other end--see FIGS. 2 and 3. The phosphoramidite group on the linker phosphoramidite may be activated under the same conditions and has similar reactivity as conventional nucleoside-3'-phosphoramidite reagents lacking the intermediate linker arm. The 3'-ester linkage contained within the linker phosphoramidite has similar properties to the linkages on prederivatized supports. The ester linkage is stable to all subsequent synthesis steps, but upon treatment with a cleavage reagent, such as ammonium hydroxide, the ester linkage is hydrolyzed. This releases the oligonucleotide product with the desired 3'-hydroxyl terminus and leaves the phosphate portion of the reagent attached to the support, which is subsequently discarded.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 12 OF 15 USPATFULL on STN

AN 2002:217248 USPATFULL

TI Oligonucleotides having site specific chiral phosphorothioate internucleoside linkages

IN Cook, Phillip Dan, Fallbrook, CA, United States
Manoharan, Muthiah, Carlsbad, CA, United States

PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)

PI US 6440943 B1 20020827

AI US 1999-352058 19990714 (9)

RLI Continuation-in-part of Ser. No. US 1998-115027, filed on 14 Jul 1998, now patented, Pat. No. US 6242589

DT Utility

FS GRANTED

EXNAM Primary Examiner: Wilson, James O.

LREP Woodcock Washburn LLP

CLMN Number of Claims: 63

ECL Exemplary Claim: 1,17

DRWN 7 Drawing Figure(s); 7 Drawing Page(s)

LN.CNT 3127

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel chiral compounds that mimic and/or modulate the activity of wild-type nucleic acids are disclosed. In general, the compounds are phosphorothioate oligonucleotides wherein the 5', and the 3'-terminal internucleoside linkages are chirally Sp and internal internucleoside linkages are chirally Rp.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 15 USPATFULL on STN

AN 2001:173730 USPATFULL

TI Large scale synthesis of oligonucleotides and their associated analogs

IN Froehler, Brian Carl, Belmont, CA, United States
Kent, Kenneth Michael, Mt View, CA, United States
Wu, Sylvia, Castro Valley, CA, United States

PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S.
corporation)
PI US 6300486 B1 20011009
AI US 1998-196567 19981120 (9)
RLI Continuation of Ser. No. US 1993-67261, filed on 25 May 1993, now
abandoned Continuation of Ser. No. US 1989-366849, filed on 15 Jun 1989,
now patented, Pat. No. US 5164491, issued on 17 Nov 1992 Continuation of
Ser. No. US 1991-654707, filed on 13 Feb 1991

DT Utility
FS GRANTED
EXNAM Primary Examiner: Geist, Gary; Assistant Examiner: Crane, L E
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1228

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention describes methods for the production of
oligonucleotides under conditions which exploit the desirable
characteristics, such as the property of sustaining high degrees of
substitution, of functionalized organic polymeric supports while
avoiding the sluggish kinetics and low rates of conversion which
normally plague syntheses involving such solid supports. By employing
the methods and materials disclosed, functionalized support, substituted
to a degree of about 250 $\mu\text{mol/g}$, can be utilized at greater than 98%
conversion levels for each sequential nucleotide coupling cycle, to
provide unprecedented amounts of isolated oligonucleotide per
gram of solid support.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 15 USPATFULL on STN
AN 93:31521 USPATFULL
TI Monomethoxytrityl protected oligonucleotides bound to a solid support
IN Froehler, Brian C., 2310 Monserat Ave., Belmont, CA, United States
94002
Kent, Kenneth M., 1725 Wright Ave. 63, Mt. View, CA, United States
94043
Wu, Sylvia, 6050 Mount Rushmore Cir., Castro Valley, CA, United States
94552

PI US 5204455 19930420
AI US 1992-833242 19920210 (7)
RLI Continuation of Ser. No. US 1989-366849, filed on 15 Jun 1989, now
patented, Pat. No. US 5164491

DT Utility
FS Granted
EXNAM Primary Examiner: Rollins, John W.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1045

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention describes methods for the production of
oligonucleotides under conditions which exploit the desirable
characteristics, such as the property of sustaining high degrees of
substitution, of functionalized organic polymeric supports while
avoiding the sluggish kinetics and low rates of conversion which
normally plague syntheses involving such solid supports. By employing
the methods and materials disclosed, functionalized support, substituted
to a degree of about 250 $\mu\text{mol/g}$, can be utilized at greater than 98%
conversion levels for each sequential nucleotide coupling cycle, to

provide unprecedented amounts of isolated oligonucleotide per gram of solid support.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 15 USPATFULL on STN
AN 92:95181 USPATFULL
TI Large scale synthesis of oligonucleotides and their associated analogs
IN Froehler, Brian C., Belmont, CA, United States
Kent, Kenneth M., Mt. View, CA, United States
Wu, Sylvia, Castro Valley, CA, United States
PA Gilead Sciences, Foster City, CA, United States (U.S. corporation)
PI US 5164491 19921117
AI US 1989-366849 19890615 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Rollins, John W.
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 1052

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention describes methods for the production of oligonucleotides under conditions which exploit the desirable characteristics, such as the property of sustaining high degrees of substitution, of functionalized organic polymeric supports while avoiding the sluggish kinetics and low rates of conversion which normally plague syntheses involving such solid supports. By employing the methods and materials disclosed, functionalized support, substituted to a degree of about 250 $\mu\text{mol/g}$, can be utilized at greater than 98% conversion levels for each sequential nucleotide coupling cycle, to provide unprecedented amounts of isolated oligonucleotide per gram of solid support.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.